

ABSTRACT

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The field of the invention is that of photodetectors, and more precisely so-called quantum well photodetectors operating in the medium infrared, known by the acronym QWIP standing for Quantum Well Infrared Photodetector. It is an object of the invention to increase the detectivity of the detectors by significantly reducing the surface area of the detection zone while conserving the incident flux. This result is obtained by arranging a structure or grating on the active zone of the photodetector, which couples the incident wave and confines it on the active zone. The major features of this structure or this grating are that it comprises patterns or grooves having a first spatial frequency and a second spatial frequency, and also comprising a central defect.

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